

## IN THE CLAIMS

1. (Withdrawn) A biocompatible polymer having a biodegradable or nondegradable polymeric backbone, comprising:

a biodegradable or nondegradable polymer; and  
choline or phospholipid moieties.

2. (Withdrawn) The biocompatible polymer of claim 1 wherein the phospholipid moieties comprise a component selected from the group consisting of phosphoryl choline, phosphoryl serine, phosphoryl inositol, di-phosphoryl glycerol, zwitterionic phosphoryl ethanolamine, and combinations thereof.

3. (Withdrawn) The biocompatible polymer of claim 1 wherein the nondegradable polymer comprises monomers selected from the group consisting of methylmethacrylate (MMA), ethylmethacrylate (EMA), butylmethacrylate (BMA), 2-ethylhexylmethacrylate, laurylmethacrylate (LMA), hydroxyl ethyl methacrylate (HEMA), PEG acrylate (PEGA), PEG methacrylate, 2-methacryloyloxyethylphosphorylcholine (MPC) and *n*-vinyl pyrrolidone (VP), methacrylic acid (MA), acrylic acid (AA), hydroxypropyl methacrylate (HPMA), hydroxypropylmethacrylamide, 3-trimethylsilylpropyl methacrylate (TMSPMA), and combinations thereof.

4. (Withdrawn) The biocompatible polymer of claim 1 wherein the biodegradable polymer comprises monomers selected from the group consisting of glycolide, lactide, butyrolactone, caprolactone, hydroxyalkanoate, 3-hydroxybutyrate, 4-hydroxybutyrate, 3-hydroxyvalerate, 3-hydroxyhexanoate, and combinations thereof.

5. (Withdrawn) The biocompatible polymer of claim 1 wherein the biodegradable

polymer is selected from the group consisting of polyesters, polyhydroxyalkanoates (PHAs), poly( $\alpha$ -hydroxyacids), poly( $\beta$ -hydroxyacid) such as poly(3-hydroxybutyrate) (PHB); poly(3-hydroxybutyrate-co-valerate) (PHBV), poly(3-hydroxypropionate) (PHP), poly(3-hydroxyhexanoate) (PHH), or poly(4-hydroxyacids), poly(4-hydroxybutyrate), poly(4-hydroxyvalerate), poly(4-hydroxyhexanoate), poly(hydroxyvalerate, poly(ester amides) that may optionally contain alkyl; amino acid; PEG and/or alcohol groups, polycaprolactone, polylactide, polyglycolide, poly(lactide-co-glycolide), polydioxanone (PDS), polyorthoester, polyanhydride, poly(glycolic acid-co-trimethylene carbonate), polyphosphoester polyphosphoester urethane, poly(amino acids), polycyanoacrylates, poly(trimethylene carbonate), poly(iminocarbonate), poly(tyrosine carbonates), polycarbonates, poly(tyrosine arylates), polyurethanes, copoly(ether-esters), polyalkylene oxalates, polyphosphazenes, PHA-PEG, and combinations thereof.

6. (Withdrawn) The biocompatible polymer of claim 1 wherein the nondegradable polymer is selected from the group consisting of ethylene vinyl alcohol copolymer (EVOH), polyurethanes, silicones, polyesters, polyolefins, polyisobutylene and ethylene-alphaolefin copolymers, styrene-isobutylene-styrene triblock copolymers, acrylic polymers and copolymers, vinyl halide polymers and copolymers, polyvinyl chloride, polyvinyl ethers, polyvinyl methyl ether, polyvinylidene halides, polyvinylidene fluoride, polyvinylidene chloride, polyfluoroalkenes, polyperfluoroalkenes, polyacrylonitrile, polyvinyl ketones, polyvinyl aromatics, polystyrene, polyvinyl esters, polyvinyl acetate, copolymers of vinyl monomers with each other and olefins, ethylene-methyl methacrylate copolymers, acrylonitrile-styrene copolymers, ABS resins, and ethylene-vinyl acetate copolymers, polyamides such as Nylon 66 and polycaprolactam, alkyd resins, polyoxymethylenes; polyimides; polyethers, epoxy resins, rayon, rayon-triacetate, and combinations thereof.

7. (Withdrawn) The biocompatible polymer of claim 1 further comprising a biobeneficial moiety selected from the group consisting of a non-fouling moiety, an anti-thrombogenic moiety, and a combination thereof.

8. (Withdrawn) The biocompatible polymer of claim 7 wherein the non-fouling moiety is selected from the group consisting of PEG, polyalkene oxides, hydroxyethylmethacrylate (HEMA), poly(n-propylmethacrylamide), sulfonated polystyrene, hyaluronic acid, poly(vinyl alcohol), poly(N-vinyl-2-pyrrolidone), sulfonated dextran, and combinations thereof; and the anti-thrombogenic moiety is selected from the group consisting of heparin, salicylate (aspirin), hirudin, flavonoids, NO donor, thrombomodulin, Atrial natriuretic peptide (ANP), and combinations thereof, and combinations thereof.

9. (Withdrawn) The biocompatible polymer of claim 8 wherein heparin is attached to the polymer via a PEG spacer.

10. (Withdrawn) The biocompatible polymer of claim 2 further comprising a biobeneficial moiety selected from the group consisting of a non-fouling moiety, an anti-thrombogenic moiety, and a combination thereof.

11. (Withdrawn) The biocompatible polymer of claim 10 wherein the non-fouling moiety is selected from the group consisting of PEG, polyalkene oxides, hydroxyethylmethacrylate (HEMA), poly(n-propylmethacrylamide), sulfonated polystyrene, hyaluronic acid, poly(vinyl alcohol), poly(N-vinyl-2-pyrrolidone), sulfonated dextran, and combinations thereof; and the anti-thrombogenic moiety is selected from the group consisting of heparin, salicylate (aspirin), hirudin, flavonoids, NO donor, thrombomodulin, Atrial natriuretic peptide (ANP), and combinations thereof, and combinations thereof.

12. (Withdrawn) The biocompatible polymer of claim 11 wherein heparin is attached

to the polymer via a PEG spacer.

13. (Withdrawn) The biocompatible polymer of claim 3 further comprising a biobeneficial moiety selected from the group consisting of a non-fouling moiety, an anti-thrombogenic moiety, and a combination thereof.

14. (Withdrawn) The biocompatible polymer of claim 13 wherein the non-fouling moiety is selected from the group consisting of PEG, polyalkene oxides, hydroxyethylmethacrylate (HEMA), poly(n-propylmethacrylamide), sulfonated polystyrene, hyaluronic acid, poly(vinyl alcohol), poly(N-vinyl-2-pyrrolidone), sulfonated dextran, and combinations thereof; and the anti-thrombogenic moiety is selected from the group consisting of heparin, salicylate (aspirin), hirudin, flavonoids, NO donor, thrombomodulin, Atrial natriuretic peptide (ANP), and combinations thereof, and combinations thereof.

15. (Withdrawn) The biocompatible polymer of claim 14 wherein heparin is attached to the polymer via a PEG spacer.

16. (Withdrawn) The biocompatible polymer of claim 5 further comprising a biobeneficial moiety selected from the group consisting of a non-fouling moiety, an anti-thrombogenic moiety, and a combination thereof.

17. (Withdrawn) The biocompatible polymer of claim 16 wherein the non-fouling moiety is selected from the group consisting of PEG, polyalkene oxides, hydroxyethylmethacrylate (HEMA), poly(n-propylmethacrylamide), sulfonated polystyrene, hyaluronic acid, poly(vinyl alcohol), poly(N-vinyl-2-pyrrolidone), sulfonated dextran, and combinations thereof; and the anti-thrombogenic moiety is selected from the group consisting of heparin, salicylate (aspirin), hirudin, flavonoids, NO donor, thrombomodulin, Atrial natriuretic peptide (ANP), and combinations thereof, and combinations thereof.

18. (Withdrawn) The biocompatible polymer of claim 17 wherein heparin is attached to the polymer via a PEG spacer.

19. (Withdrawn) The biocompatible polymer of claim 1 wherein the polymeric backbone is capable of degrading into components which are pharmacologically active and therapeutic to the process of restenosis or Sub-acute thrombosis.

20. (Withdrawn) The biocompatible polymer of claim 1 wherein the polymeric backbone is PolyAspirin™.

21. (Withdrawn) An implanatable device comprising a coating that comprises the biocompatible polymer of claim 1.

22. (Withdrawn) An implanatable device comprising a coating that comprises the biocompatible polymer of claim 2.

23. (Withdrawn) An implanatable device comprising a coating that comprises the biocompatible polymer of claim 3.

24. (Withdrawn) An implanatable device comprising a coating that comprises the biocompatible polymer of claim 4.

25. (Withdrawn) An implanatable device comprising a coating that comprises the biocompatible polymer of claim 5.

26. (Withdrawn) An implanatable device comprising a coating that comprises the biocompatible polymer of claim 6.

27. (Withdrawn) An implanatable device comprising a coating that comprises the biocompatible polymer of claim 7.

28. (Withdrawn) An implanatable device comprising a coating that comprises the biocompatible polymer of claim 8.

29. (Withdrawn) An implanatable device comprising a coating that comprises the biocompatible polymer of claim 9.

30. (Withdrawn) An implanatable device comprising a coating that comprises the biocompatible polymer of claim 10.

31. (Withdrawn) An implanatable device comprising a coating that comprises the biocompatible polymer of claim 11.

32. (Withdrawn) An implanatable device comprising a coating that comprises the biocompatible polymer of claim 12.

33. (Withdrawn) An implanatable device comprising a coating that comprises the biocompatible polymer of claim 13.

34. (Withdrawn) An implanatable device comprising a coating that comprises the biocompatible polymer of claim 14.

35. (Withdrawn) An implanatable device comprising a coating that comprises the biocompatible polymer of claim 15.

36. (Withdrawn) An implanatable device comprising a coating that comprises the biocompatible polymer of claim 16.

37. (Withdrawn) An implanatable device comprising a coating that comprises the biocompatible polymer of claim 17.

38. (Withdrawn) An implanatable device comprising a coating that comprises the biocompatible polymer of claim 18.

39. (Withdrawn) An implanatable device comprising a coating that comprises the biocompatible polymer of claim 19.

40. (Withdrawn) An implantable device comprising a coating that comprises the biocompatible polymer of claim 20.

41. (Withdrawn) The implantable device of claim 21 wherein the coating further comprises a biobeneficial material selected from the group consisting of a non-fouling polymer, an anti-thrombogenic polymer, and a combination thereof.

42. (Withdrawn) The implantable device of claim 22 wherein the coating further comprises a biobeneficial material selected from the group consisting of a non-fouling polymer, an anti-thrombogenic polymer, and a combination thereof.

43. (Currently amended) ~~The An implantable device of claim 21 wherein the coating further comprises a bioactive agent comprising a coating that comprises a biocompatible polymer, the biocompatible polymer comprising~~

a biodegradable or nondegradable polymer backbone;

phospholipid moieties; and

a bioactive agent;

wherein the phospholipid moieties are selected from the group consisting of phosphoryl serine, phosphoryl inositol, di-phosphoryl glycerol, zwitterionic phosphoryl ethanolamine, and combinations thereof.

44. (Original) The implantable device of claim 43 wherein the bioactive agent is selected from the group consisting of proteins, peptides, anti-inflammatory agents, antivirals, anticancer drugs, anticoagulant agents, free radical scavengers, steroidal anti-inflammatory agents, antibiotics, nitric oxide donors, super oxide dismutases, super oxide dismutases mimics, cytostatic agents, prodrugs thereof, co-drugs thereof, and a combination thereof.

45. (Currently amended) The implantable device of claim 22 43, wherein the coating

further comprising an agent selected from the group consisting of ABT-578, dexamethasone, clobetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl(TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-*O*-(2-hydroxy)ethyl-rapamycin (EVEROLIMUS), 40-*O*-(3-hydroxy)propyl-rapamycin, 40-*O*-[2-(2-hydroxy)ethoxy]ethyl-rapamycin, and 40-*O*-tetrazole-rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof.

46. (Currently amended) The implantable device of claim 23 45, ~~wherein the coating further comprising an agent selected from the group consisting of ABT-578, dexamethasone, clobetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl(TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-*O*-(2-hydroxy)ethyl-rapamycin (EVEROLIMUS), 40-*O*-(3-hydroxy)propyl-rapamycin, 40-*O*-[2-(2-hydroxy)ethoxy]ethyl-rapamycin, and 40-*O*-tetrazole-rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof~~ wherein the nondegradable polymer comprises monomers selected from the group consisting of methylmethacrylate (MMA), ethylmethacrylate (EMA), butylmethacrylate (BMA), 2-ethylhexylmethacrylate, laurylmethacrylate (LMA), hydroxyl ethyl methacrylate (HEMA), PEG acrylate (PEGA), PEG methacrylate, 2-methacryloyloxyethylphosphorylcholine (MPC) and *n*-vinyl pyrrolidone (VP), methacrylic acid (MA), acrylic acid (AA), hydroxypropyl methacrylate (HPMA), hydroxypropylmethacrylamide, 3-trimethylsilylpropyl methacrylate (TMSPMA), and combinations thereof.

47. (Currently amended) The implantable device of claim 24 45, ~~wherein the coating further comprising an agent selected from the group consisting of ABT-578, dexamethasone, clobetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-~~



TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl(TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-O-(2-hydroxy)ethyl-rapamycin (EVEROLIMUS), 40-O-(3-hydroxy)propyl-rapamycin, 40-O-[2-(2-hydroxy)ethoxy]ethyl-rapamycin, and 40-O-tetrazole-rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof wherein the biodegradable polymer comprises monomers selected from the group consisting of glycolide, lactide, butyrolactone, caprolactone, hydroxyalkanoate, 3-hydroxybutyrate, 4-hydroxybutyrate, 3-hydroxyvalerate, 3-hydroxyhexanoate, and combinations thereof.

48. (Currently amended) The implantable device of claim 25 45, wherein the coating further comprising an agent selected from the group consisting of ABT-578, dexamethasone, elobetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl(TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-O-(2-hydroxy)ethyl-rapamycin (EVEROLIMUS), 40-O-(3-hydroxy)propyl-rapamycin, 40-O-[2-(2-hydroxy)ethoxy]ethyl-rapamycin, and 40-O-tetrazole-rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof wherein the biodegradable polymer is selected from the group consisting of polyesters, poly(hydroxyalkanoates (PHAs), poly( $\alpha$ -hydroxyacids), poly( $\beta$ -hydroxyacid) such as poly(3-hydroxybutyrate) (PHB); poly(3-hydroxybutyrate-co-valerate) (PHBV), poly(3-hydroxypropionate) (PHP), poly(3-hydroxyhexanoate) (PHH), or poly(4-hydroxyacids), poly(4-hydroxybutyrate), poly(4-hydroxyvalerate), poly(4-hydroxyhexanoate), poly(hydroxyvalerate, poly(ester amides) that may optionally contain alkyl; amino acid; PEG and/or alcohol groups, polycaprolactone, polylactide, polyglycolide, poly(lactide-co-glycolide), polydioxanone (PDS), polyorthoester, polyanhydride, poly(glycolic acid-co-trimethylene carbonate), polyphosphoester polyphosphoester urethane, poly(amino acids), polycyanoacrylates, poly(trimethylene carbonate).

poly(iminocarbonate), poly(tyrosine carbonates), polycarbonates, poly(tyrosine arylates), polyurethanes, copoly(ether-esters), polyalkylene oxalates, polyphosphazenes, PHA-PEG, and combinations thereof.

49. (Currently amended) The implantable device of claim 26 45, wherein the coating further comprising an agent selected from the group consisting of ABT-578, dexamethasone, elobetazol, paclitaxel, estradiol, 4 amino 2,2,6,6 tetramethylpiperidine 1-oxyl (4 amino-TEMPO), 4 hydroxy 2,2,6,6-tetramethylpiperidine 1-oxyl(TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-O-(2-hydroxy)ethyl-rapamycin (EVEROLIMUS), 40-O-(3-hydroxy)propyl-rapamycin, 40-O-[2-(2-hydroxy)ethoxy]ethyl-rapamycin, and 40-O-tetrazole-rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof wherein the nondegradable polymer is selected from the group consisting of ethylene vinyl alcohol copolymer (EVOH), polyurethanes, silicones, polyesters, polyolefins, polyisobutylene and ethylene-alphaolefin copolymers, styrene-isobutylene-styrene triblock copolymers, acrylic polymers and copolymers, vinyl halide polymers and copolymers, polyvinyl chloride, polyvinyl ethers, polyvinyl methyl ether, polyvinylidene halides, polyvinylidene fluoride, polyvinylidene chloride, polyfluoroalkenes, polyperfluoroalkenes, polyacrylonitrile, polyvinyl ketones, polyvinyl aromatics, polystyrene, polyvinyl esters, polyvinyl acetate, copolymers of vinyl monomers with each other and olefins, ethylene-methyl methacrylate copolymers, acrylonitrile-styrene copolymers, ABS resins, and ethylene-vinyl acetate copolymers, polyamides such as Nylon 66 and polycaprolactam, alkyd resins, polyoxymethylenes; polyimides; polyethers, epoxy resins, rayon, rayon-triacetate, and combinations thereof.

50. (Currently amended) The implantable device of claim 27 45, wherein the coating further comprising an agent selected from the group consisting of ABT-578, dexamethasone,

elobetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-O-(2-hydroxy)ethyl-rapamycin (EVEROLIMUS), 40-O-(3-hydroxy)propyl-rapamycin, 40-O-[2-(2-hydroxy)ethoxy]ethyl-rapamycin, and 40-O-tetrazole-rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof further comprising a biobeneficial moiety selected from the group consisting of a non-fouling moiety, an anti-thrombogenic moiety, and a combination thereof.

51. (Currently amended) The implantable device of claim 28 50, wherein the coating further comprising an agent selected from the group consisting of ABT-578, dexamethasone, elobetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-O-(2-hydroxy)ethyl-rapamycin (EVEROLIMUS), 40-O-(3-hydroxy)propyl-rapamycin, 40-O-[2-(2-hydroxy)ethoxy]ethyl-rapamycin, and 40-O-tetrazole-rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof wherein the non-fouling moiety is selected from the group consisting of PEG, polyalkene oxides, hydroxyethylmethacrylate (HEMA), poly(n-propylmethacrylamide), sulfonated polystyrene, hyaluronic acid, poly(vinyl alcohol), poly(N-vinyl-2-pyrrolidone), sulfonated dextran, and combinations thereof; and the anti-thrombogenic moiety is selected from the group consisting of heparin, salicylate (aspirin), hirudin, flavonoids, NO donor, thrombomodulin, Atrial natriuretic peptide (ANP), and combinations thereof, and combinations thereof.

52. (Currently amended) The implantable device of claim 29 51, wherein the coating further comprising an agent selected from the group consisting of ABT-578, dexamethasone, elobetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-

TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl(TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-O-(2-hydroxy)ethyl-rapamycin (EVEROLIMUS), 40-O-(3-hydroxy)propyl-rapamycin, 40-O-[2-(2-hydroxy)ethoxy]ethyl-rapamycin, and 40-O-tetrazole-rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof wherein heparin is attached to the polymer via a PEG spacer.

53. (Currently amended) The implantable device of claim 30 ~~43~~, ~~wherein the coating further comprising an agent selected from the group consisting of~~ ABT-578, dexamethasone, clobetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl(TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-O-(2-hydroxy)ethyl-rapamycin (EVEROLIMUS), 40-O-(3-hydroxy)propyl-rapamycin, 40-O-[2-(2-hydroxy)ethoxy]ethyl-rapamycin, and 40-O-tetrazole-rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof further comprising a biobeneficial moiety selected from the group consisting of a non-fouling moiety, an anti-thrombogenic moiety, and a combination thereof.

54. (Currently amended) The implantable device of claim 31 ~~53~~, ~~wherein the coating further comprising an agent selected from the group consisting of~~ ABT-578, dexamethasone, clobetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl(TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-O-(2-hydroxy)ethyl-rapamycin (EVEROLIMUS), 40-O-(3-hydroxy)propyl-rapamycin, 40-O-[2-(2-hydroxy)ethoxy]ethyl-rapamycin, and 40-O-tetrazole-rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof wherein the non-fouling moiety is selected from the group consisting of PEG, polyalkene oxides, hydroxyethylmethacrylate (HEMA), poly(n-propylmethacrylamide), sulfonated polystyrene,

hyaluronic acid, poly(vinyl alcohol), poly(N-vinyl-2-pyrrolidone), sulfonated dextran, and combinations thereof; and the anti-thrombogenic moiety is selected from the group consisting of heparin, salicylate (aspirin), hirudin, flavonoids, NO donor, thrombomodulin, Atrial natriuretic peptide (ANP), and combinations thereof, and combinations thereof.

55. (Currently amended) The implantable device of claim 32 54, wherein the coating further comprising an agent selected from the group consisting of ABT-578, dexamethasone, elobetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-O-(2-hydroxy)ethyl-rapamycin (EVEROLIMUS), 40-O-(3-hydroxy)propyl-rapamycin, 40-O-[2-(2-hydroxy)ethoxy]ethyl-rapamycin, and 40-O-tetrazole-rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof wherein heparin is attached to the polymer via a PEG spacer.

56. (Currently amended) The implantable device of claim 33 43, wherein the coating further comprising an agent selected from the group consisting of ABT-578, dexamethasone, elobetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-O-(2-hydroxy)ethyl-rapamycin (EVEROLIMUS), 40-O-(3-hydroxy)propyl-rapamycin, 40-O-[2-(2-hydroxy)ethoxy]ethyl-rapamycin, and 40-O-tetrazole-rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof wherein a biobeneficial moiety is a non-fouling moiety.

57. (Currently amended) The implantable device of claim 34 56, wherein the coating further comprising an agent selected from the group consisting of ABT-578, dexamethasone, elobetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-

TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl(TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-O-(2-hydroxy)ethyl-rapamycin (EVEROLIMUS), 40-O-(3-hydroxy)propyl-rapamycin, 40-O-[2-(2-hydroxy)ethoxy]ethyl-rapamycin, and 40-O-tetrazole-rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof wherein the non-fouling moiety is selected from the group consisting of PEG, polyalkene oxides, hydroxyethylmethacrylate (HEMA), poly(n-propylmethacrylamide), sulfonated polystyrene, hyaluronic acid, poly(vinyl alcohol), poly(N-vinyl-2-pyrrolidone), sulfonated dextran, and combinations thereof.

58. (Currently amended) The implantable device of claim 35 ~~57~~, ~~wherein the coating further comprising an agent selected from the group consisting of ABT-578, dexamethasone, elobetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl(TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-O-(2-hydroxy)ethyl-rapamycin (EVEROLIMUS), 40-O-(3-hydroxy)propyl-rapamycin, 40-O-[2-(2-hydroxy)ethoxy]ethyl-rapamycin, and 40-O-tetrazole-rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof~~ wherein heparin is attached to the polymer via a PEG spacer.

59. (Currently amended) The implantable device of claim 36 ~~43~~, ~~wherein the coating further comprising an agent selected from the group consisting of ABT-578, dexamethasone, elobetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl(TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-O-(2-hydroxy)ethyl-rapamycin (EVEROLIMUS), 40-O-(3-hydroxy)propyl-rapamycin, 40-O-[2-(2-hydroxy)ethoxy]ethyl-rapamycin, and 40-O-tetrazole-rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof~~ wherein a biobeneficial

moiety is an anti-thrombogenic moiety.

60. (Currently amended) The implantable device of claim 37 59, ~~wherein the coating further comprising an agent selected from the group consisting of ABT-578, dexamethasone, clobetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-O-(2-hydroxy)ethyl-rapamycin (EVEROLIMUS), 40-O-(3-hydroxy)propyl-rapamycin, 40-O-[2-(2-hydroxy)ethoxy]ethyl-rapamycin, and 40-O-tetrazole-rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof~~ wherein the anti-thrombogenic moiety is selected from the group consisting of heparin, salicylate (aspirin), hirudin, flavonoids, NO donor, thrombomodulin, Atrial natriuretic peptide (ANP), and combinations thereof.

61. (Currently amended) The implantable device of claim 38 60, ~~wherein the coating further comprising an agent selected from the group consisting of ABT-578, dexamethasone, clobetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-O-(2-hydroxy)ethyl-rapamycin (EVEROLIMUS), 40-O-(3-hydroxy)propyl-rapamycin, 40-O-[2-(2-hydroxy)ethoxy]ethyl-rapamycin, and 40-O-tetrazole-rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof~~ wherein heparin is attached to the polymer via a PEG spacer.

62. (Currently amended) The implantable device of claim 39 45, ~~wherein the coating further comprising an agent selected from the group consisting of ABT-578, dexamethasone, clobetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPOL), tacrolimus, sirolimus,~~

sirolimus derivatives, 40-*O*-(2-hydroxy)ethyl rapamycin (EVEROLIMUS), 40-*O*-(3-hydroxy)propyl rapamycin, 40-*O*-[2-(2-hydroxy)ethoxy]ethyl rapamycin, and 40-*O*-tetrazole rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof wherein the polymeric backbone is capable of degrading into components which are pharmacologically active and therapeutic to the process of restenosis or sub-acute thrombosis.

63. (Currently amended) The implantable device of claim 40 45, ~~wherein the coating further comprising an agent selected from the group consisting of ABT-578, dexamethasone, clobetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-*O*-(2-hydroxy)ethyl rapamycin (EVEROLIMUS), 40-*O*-(3-hydroxy)propyl rapamycin, 40-*O*-[2-(2-hydroxy)ethoxy]ethyl rapamycin, and 40-*O*-tetrazole rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof~~ wherein the polymeric backbone is PolyAspirin™.

64. (Currently amended) The implantable device of claim 41 45, ~~wherein the coating further comprising an agent selected from the group consisting of ABT-578, dexamethasone, clobetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-*O*-(2-hydroxy)ethyl rapamycin (EVEROLIMUS), 40-*O*-(3-hydroxy)propyl rapamycin, 40-*O*-[2-(2-hydroxy)ethoxy]ethyl rapamycin, and 40-*O*-tetrazole rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof~~ wherein a biobeneficial moiety is a non-fouling moiety.

65. (Currently amended) The implantable device of claim 42 45, ~~wherein the coating further comprising an agent selected from the group consisting of ABT-578, dexamethasone,~~



elebetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl (TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-O-(2-hydroxy)ethyl-rapamycin (EVEROLIMUS), 40-O-(3-hydroxy)propyl-rapamycin, 40-O-[2-(2-hydroxy)ethoxy]ethyl-rapamycin, and 40-O-tetrazole-rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof wherein a biobeneficial moiety is an anti-thrombogenic moiety.

66. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 21,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

67. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 41,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

68. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 42,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque,

chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

69. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 43,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

70. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 44,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

71. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 45,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

72. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 46,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

73. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 47,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

74. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 48,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

75. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 49,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

76. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 50,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

77. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 51,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

78. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 52,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

79. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 53,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque,

chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

80. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 54,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

81. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 55,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

82. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 56,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

83. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 57,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

84. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 58,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

85. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 59,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

86. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 60,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

87. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 61,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

88. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 62,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

89. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 63,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

90. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 64,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque,

chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

91. (Withdrawn) A method of treating a human being by implanting in the human being a stent as defined in claim 65,

wherein the disorder is selected from the group consisting of atherosclerosis, thrombosis, restenosis, hemorrhage, vascular dissection or perforation, vascular aneurysm, vulnerable plaque, chronic total occlusion, claudication, anastomotic proliferation for vein and artificial grafts, bile duct obstruction, ureter obstruction, tumor obstruction, and combinations thereof.

92. (Withdrawn) A method of preparing a phosphoryl choline (PC) containing polymer or copolymer, comprising:

forming a monomer or comonomer comprising at least one PC moiety; and

polymerizing the monomer or comonomer comprising at least one PC moiety to form the PC containing polymer or copolymer.

93. (Withdrawn) A coating composition comprising the polymer of claim 1.

94. (Withdrawn) A coating composition comprising the polymer of claim 2.

95. (Withdrawn) A coating composition comprising the polymer of claim 3.

96. (Withdrawn) A coating composition comprising the polymer of claim 4.

97. (Withdrawn) A coating composition comprising the polymer of claim 5.

98. (Withdrawn) A coating composition comprising the polymer of claim 6.

99. (Withdrawn) A coating composition comprising the polymer of claim 7.

100. (New) An implantable device comprising a coating that comprises a biocompatible polymer, the biocompatible polymer comprising a biodegradable or nondegradable polymer backbone;



choline or phosphoryl choline moieties; and

a bioactive agent;

wherein the biodegradable polymer is selected from the group consisting of polyhydroxyalkanoates (PHAs), poly( $\alpha$ -hydroxyacids), poly( $\beta$ -hydroxyacid) such as poly(3-hydroxybutyrate) (PHB); poly(3-hydroxybutyrate-co-valerate) (PHBV), poly(3-hydroxypropionate) (PHP), poly(3-hydroxyhexanoate) (PHH), or poly(4-hydroxyacids), poly(4-hydroxybutyrate), poly(4-hydroxyvalerate), poly(4-hydroxyhexanoate), poly(hydroxyvalerate, poly(ester amides) that may optionally contain alkyl; amino acid; PEG and/or alcohol groups, poly(lactide-co-glycolide), polydioxanone (PDS), polyorthoester, polyanhydride, poly(glycolic acid-co-trimethylene carbonate), polyphosphoester polyphosphoester urethane, poly(amino acids), polycyanoacrylates, poly(iminocarbonate), poly(tyrosine carbonates), poly(tyrosine arylates), polyurethanes, copoly(ether-esters), polyalkylene oxalates, polyphosphazenes, PHA-PEG, and combinations thereof;

wherein the nondegradable polymer is selected from the group consisting of ethylene vinyl alcohol copolymer (EVOH), polyurethanes, silicones, polyolefins, polyisobutylene and ethylene-alphaolefin copolymers, styrene-isobutylene-styrene triblock copolymers, vinyl halide polymers and copolymers, polyvinyl chloride, polyvinyl ethers, polyvinyl methyl ether, polyvinylidene halides, polyvinylidene fluoride, polyvinylidene chloride, polyfluoroalkenes, polyperfluoroalkenes, polyacrylonitrile, polyvinyl ketones, polyvinyl aromatics, polystyrene, polyvinyl esters, polyvinyl acetate, copolymers of vinyl monomers with each other and olefins, ethylene-methyl methacrylate copolymers, acrylonitrile-styrene copolymers, ABS resins, and ethylene-vinyl acetate copolymers, polyamides, Nylon 66 and polycaprolactam, alkyd resins, polyoxymethylenes; polyimides; polyethers, epoxy resins, rayon, rayon-triacetate, and

combinations thereof.

101. (New) The implantable device of claim 100, wherein the bioactive agent is selected from the group consisting of proteins, peptides, anti-inflammatory agents, antivirals, anticancer drugs, anticoagulant agents, free radical scavengers, steroidal anti-inflammatory agents, antibiotics, nitric oxide donors, super oxide dismutases, super oxide dismutases mimics, cytostatic agents, prodrugs thereof, co-drugs thereof, and a combination thereof.

102. (New) The implantable device of claim 100, wherein the coating further comprises an agent selected from the group consisting of ABT-578, dexamethasone, clobetasol, paclitaxel, estradiol, 4-amino-2,2,6,6-tetramethylpiperidine-1-oxyl (4-amino-TEMPO), 4-hydroxy-2,2,6,6-tetramethylpiperidine-1-oxyl(TEMPOL), tacrolimus, sirolimus, sirolimus derivatives, 40-*O*-(2-hydroxy)ethyl-rapamycin (EVEROLIMUS), 40-*O*-(3-hydroxy)propyl-rapamycin, 40-*O*-[2-(2-hydroxy)ethoxy]ethyl-rapamycin, and 40-*O*-tetrazole-rapamycin, prodrugs thereof, co-drugs thereof, and combinations thereof.